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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,552	08/20/2001	Yves Ramanzin	FR 000079	6551

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EXAMINER	
LAMARRE, GUY J	

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,552	RAMANZIN, YVES	
	Examiner	Art Unit	
	Guy J. Lamarre	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 4/18/2005.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 12-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 12-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09 July 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

RD

DETAILED ACTION

1. This office action is in response to Applicants' Appeal Brief of *18 April 2005*.

1.1 **Claims 12-22** remain pending.

1.2 The rejections of record are withdrawn in response to Applicants' Appeal Brief.

1.2.1 The **finality of the last office action is withdrawn**. The period for Applicants to **reply shall therefore be restarted** as shown on Office Action Summary attached herewith.

Claim Rejections - 35 USC § 103

2. Claim(s) 12-22 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,625,223 to **Wimmer et al.** and U.S. Patent No. 6754280 filed May 31, 2000) to **Nguyen**.

As per claims 12-22,

Wimmer substantially teaches of a transmission system, see lines 4-6 of Abstract and Figure 2, a transmitting part comprising transmission circuitry for processing data to form series of information signals (i.e. grouping data into data segments and transmitting those segments), see lines 2-6 of Abstract, a receiving part comprising receiving circuitry for processing the transmitted information signals (segments), see lines 6-8 of Abstract.

Wimmer further teaches of integrity verification means for producing an error indication of the transmitted information, see column 3, lines 47-55.

Wimmer does not explicitly teach of validating the data even if an error indication appears. Nonetheless, Wimmer does teach of increasing the probability of correctly decoding a data segment whose header section contains errors, see lines 43-55 of column 4. Wimmer has essentially taught of validating (i.e. high probability of correctness) data that has produced an error indication (i.e. header error).

Accordingly, Nguyen, in an analogous art, discloses in "Method for dealing with missing or untimely synchronization signals in digital communications systems," an equivalent

data transfer technique whereby frame/field/sync errors are ignored in data transferred based on design criteria, thereby resulting in erred data acceptance despite the error therein in Fig. 6 as shown below.

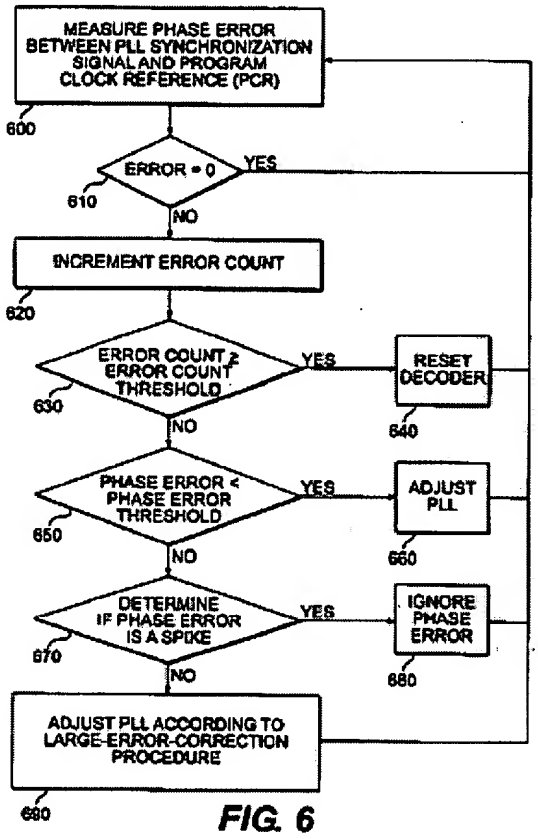

FIG. 6

For example, Nguyen discloses: '*Upon detecting the absence of a synchronization signal, an estimation of the absent synchronization signal is made based on a plurality of previously received synchronization signals, and the estimated synchronization signal is used in place of the absent synchronization signal. The estimated synchronization signal is corrected upon the receipt of a subsequent synchronization signal.*

...The present invention is directed to a method for dealing with or handling missing or untimely synchronization signals, such as Presentation Time Stamp (PTS) and Program Clock Reference (PCR) signals, in digital communications systems. Under normal operating conditions, a decoder or other type of receiver receives periodic synchronization signals. In the present invention, when the decoder detects

the absence of a synchronization signal, it estimates what the absent synchronization signal would have been, based on the previously received synchronization signals. The decoder then uses the estimated synchronization signal in place of the absent synchronization signal. ... When a decoder detects the absence of an I-frame, the present invention teaches that the decoder should keep decoding and processing subsequently-received P-frames and B-frames as if the I-frame had been received. Although the resulting picture quality will not be perfect, it has been found that it will be acceptable, especially in narrowband transmission networks such as twisted wire pair cable networks. Furthermore, it has also been found that the picture quality will improve as more P-frames and B-frames are decoded and presented subsequent to the missing I-frame... Although an MPEG decoder is designed to adjust its phase-locked loop (PLL) to match the frequency of the PCR signal transmitted by an encoder, jitter can result in a phase error between the decoder's PLL and the PCR signal. According to the present invention, the PLL should be adjusted based on the phase error, but only if the phase error is below a predetermined phase error threshold. If the phase error is at or above the predetermined phase error threshold, the decoder should determine if the error is a spike or an anomaly. If it is, the phase error should be ignored. If it is not, the decoder's PLL should be adjusted based on a large-error-correction procedure. This avoids adjusting the PLL by the entire amount of the phase error, which could cause undesirable artifacts in the presented image. The specific parameters of the large-error-correction procedure depend on the particular system configuration (e.g., whether the underlying communications network system is an Asymmetric Digital Subscriber Loop (ADSL) system, a Very-high-speed Digital Subscriber Loop (VDSL) system, or a satellite system).'

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the *communications system* in **Wimmer** by including therein synchronization forcing or error ignoring means as taught by **Nguyen,** because such modification would provide the *communications system* disclosed in **Wimmer** with a technique

whereby non-fatal errors are ignored to expedite data processing. {See **Nguyen,** Fig. 6 and col. 2 line 40 et seq.}.

As per claim 13,

Wimmer further teaches of forming the header for each of the data segments, see lines 30-55 of column 3. While not specifically teaching that the integrity verification influences the headers, Wimmer does teach that the headers contain error recognition/correction data, see lines 47-55 of column 3. The integrity verification of the applicant is simply the analysis of the header to determine if an error has occurred in the header during transmission. By including error recognition/correction data, Wimmer is teaching that the integrity verification (i.e. header error detection) influences the headers (by including an error recognition/correction field within the header). Also see **Nguyen** at Fig. 6 for such means.

As per claims 14-15,

Wimmer further teaches of calculating and transmitting the segment length field (MPL) within the header, see lines 38-45 of column 3 and Fig. 1.

Wimmer further teaches of a receiver that comprises integrity verification means. By disclosing a method of forming a header that is protected with error detection/correction, see lines 30-55 of column 3, and how the header is used on the receiving end to verify the data, see lines 35-55 of column 4, Wimmer is teaching a receiver that is capable of detecting errors within the header. By detecting errors within the header, Wimmer is teaching of integrity verification means.

While not explicitly teaching of inserting means, it is evident that the MPL field must be inserted into the header to be transmitted. Further, Wimmer teaches that if the header information is not decoded (i.e. an error has occurred) then the length field (MPL) cannot be used. One skilled in the art would see that if either the header check information does not

decode successfully or if the MPL field does not match the received data segment, then there is an error somewhere within the current data segment and hence mark the segment as containing an error. Also see **Nguyen** at Fig. 6 for such means.

As per claims 16, 22,

As note above under claim objections, the definitions for robust and uncertain are inconsistent between the specifications and the claims. Therefore, for the purpose of examining, they are read as follows: a robust mode indicates a mode in which there are no errors in the header and the MPL data matches up while uncertain mode indicates that an error has been detected within the header data.

Nonetheless, Wimmer does teach of skipping a segment whose header is found to have errors and attempt to locate the sync for the following segment, see lines 44-49 of column 4. Further one of ordinary skill in the art can tell that by skipping the segment with an error in the header and inspecting the following segment, Wimmer does classify segments by the amount of correctable decoding probabilities.

While Wimmer does not teach of management means for determining transmission quality modes, it would have been obvious to one of ordinary skill in the art to mark certain segments/packets as more reliable than others. Clearly, one skilled in the art would want to be able to differentiate between packets/segments that do not contain any errors in the headers (i.e: packets received in Robust mode) from those that clearly do (i.e. packets whose, in the case of Figures 5 and 6 of the specifications, syndromes are not equal to zero and therefore contain errors). One skilled in the art would want the types of packets to be marked separately so as to be able to read/inspect/use certain segments more reliably (i.e. Robust ones) than others (i.e. uncertain ones). Clearly uncertain segments contain errors and are less likely to produce the same data that was initially transmitted. Also see **Nguyen** at Fig. 6 for such means.

As per claims 17, 19,

Wimmer further teaches of a transmitter that is capable of inserting the MPL data, see claim 14-15 above, and of transmitting data that has been formed into series of signals, see claim 12 above. (see Abstract, lines 1-7, specifically "data segments are transmitted from a first computer to a second computer") Also see **Nguyen** at Fig. 6 for such means.

As per claim 6,

Wimmer further teaches of a receiver that comprises integrity verification means. By disclosing a method of forming a header that is protected with error detection/correction, see lines 30-55 of column 3, and how the header is used on the receiving end to verify the data, see lines 35-55 of column 4, Wimmer is teaching a receiver that is capable of detecting errors within the header. By detecting errors within the header, Wimmer is teaching of integrity verification means. Also see **Nguyen** at Fig. 6 for such means.

As per claim 20,

Wimmer further teaches of calculating and transmitting a segment length field (MPL) within the header, see lines 38-45 of column 3. While not explicitly teaching of inserting means, it is evident that the MPL field must be inserted into the header to be transmitted. Further, Wimmer teaches that if the header information is not decoded (i.e. an error has occurred) then the length field (MPL) cannot be used. One skilled in the art would see that if either the header check information does not decode successfully or if the MPL field does not match the received data segment, then there is an error somewhere within the current data segment and hence mark the segment as containing an error. Also see **Nguyen** at Fig. 6 for such means.

As per claim 21,

Wimmer further teaches of inserting an error coding information signal into the header that is used to produce an error indication (if an error occurs during transmission), see lines 48-55 of column 3. Also see **Nguyen** at Fig. 6 for such means.

As per claim 20,

Wimmer further teaches of calculating and transmitting a segment length field (MPL) within the header, see lines 38-45 of column 3. While not explicitly teaching of inserting means, it is evident that the MPL field must be inserted into the header to be transmitted. Further, Wimmer teaches that if the header information is not decoded (i.e. an error has occurred) then the length field (MPL) cannot be used. One skilled in the art would see that if either the header check information does not decode successfully or if the MPL field does not match the received data segment, then there is an error somewhere within the current data segment and hence mark the segment as containing an error. Also see **Nguyen** at Fig. 6 for such means.

Conclusion

Any response to this action should be mailed to:

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or faxed to: (571) 273-8300 for all formal communications.

Hand-delivered responses should be brought to Customer Services, 220 20th Street S., Crystal Plaza II, Lobby, Room 1B03, Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3609.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

Guy J. Lamarre, P.E
Primary Examiner
7/10/2005